



Business Analysis Summary

Olist is a comprehensive e-commerce platform that bridges the gap between SMBs and large online marketplaces. It offers a range of services, including marketplace integration, logistics support, customer service, and analytics, helping sellers streamline their operations and increase their sales. Through its revenue-sharing and subscription-based model, Olist aligns its success with the success of its sellers, driving growth and efficiency in the e-commerce sector

Key Insights:

Product Categories:

- Top categories include Home, Sports and Leisure, and Electronics
- Products vary widely in price, from high-value items like furniture to more affordable products like garden tools

Order Value Distribution:

- Average order value is R\$138, significantly higher than the median order value of R\$87 suggesting a right-skewed distribution with a long tail of higher-value orders
- Higher-value orders, although fewer in number, have a substantial impact on total sales

High-Value Orders:

- Olist has 1.7k orders that are over R\$1,000 in value contributing to R\$1.5M in total sales
- The 1.7k orders make up less than 2% of total orders but account for over 11% of total sales
- About 75% of orders are roughly under R\$150
- The top 25 percentile by order value show a range of roughly R\$150 to as high as R\$13k
- high-value orders suggests the occurrence of bulk purchases or the sale of big-ticket items

Customer reviews:

- High variability in sales month to month contributed to poor delivery performance and lower customer satisfaction scores

Sellers:

- Olist has a concentration of top sellers where 17.5% of sellers are accountable to 80% of total sales

Possible Strategic Initiatives:

Target Marketing and Customer Segmentation:

- Segment high-value and low-value customers
- Implement a loyalty program or exclusive benefits for high-spending customers to increase retention and encourage repeat purchases
- Segment based on categorical interests

Enhanced Sales Forecasting

- Inaccurate sales forecasts can have a ripple effect and can lead to issues with inventory, delivery performance, and customer satisfaction
- Forecasting is the foundational piece in planning
- Understand if logistics partners have optimal capacity

Seller Management:

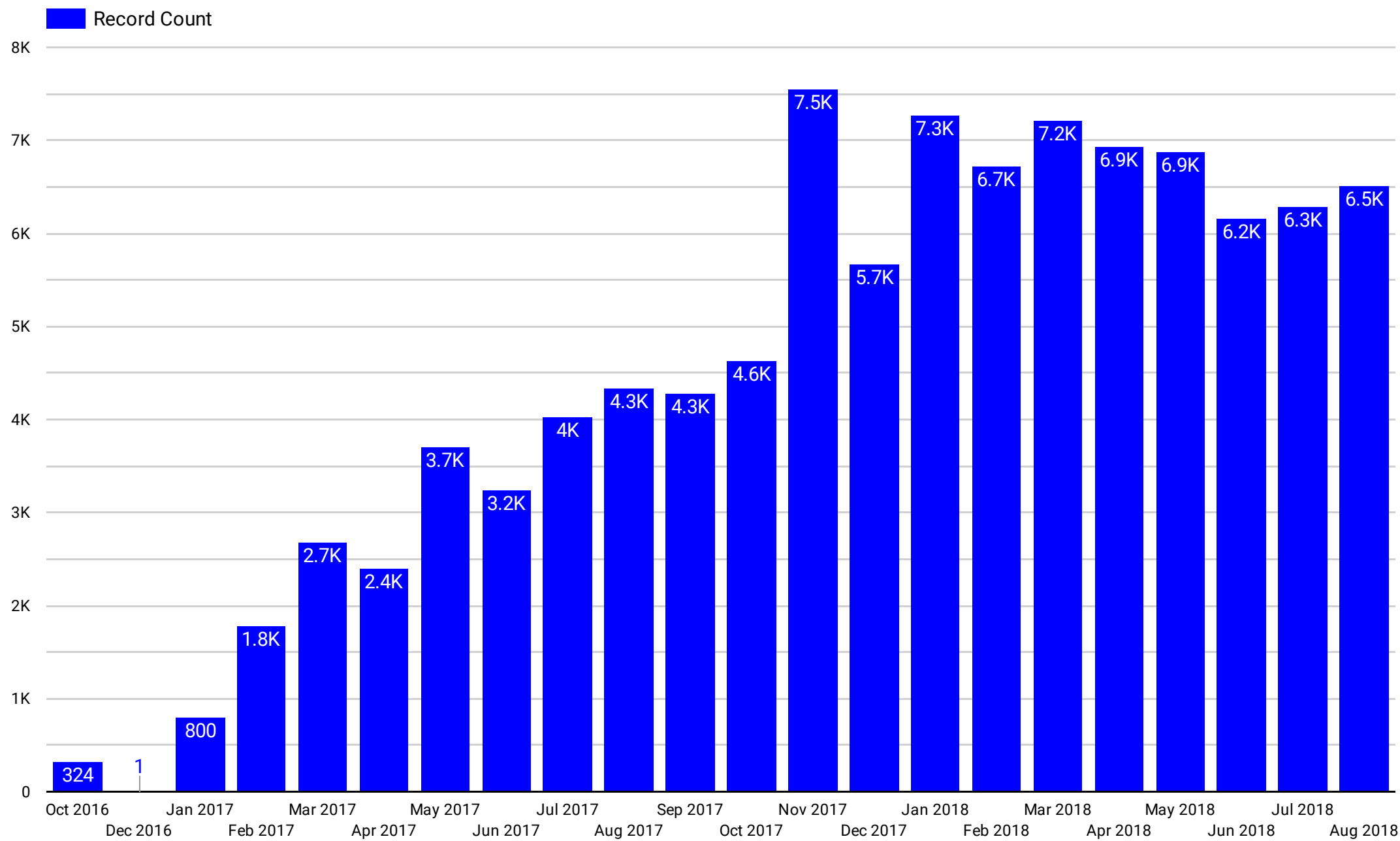
- Provide additional support and resources to top sellers who contribute significantly to total sales
- This could include dedicated account managers, advanced analytics tools, and marketing support
- Implement programs to help smaller sellers grow and improve their performance
- This could involve training, resources on best practices, and incentives for meeting sales targets

The dataset has been anonymized and was generously provided by Olist.



Sales by Month

Order Value Distribution



Total Sales by Category and Subcategory

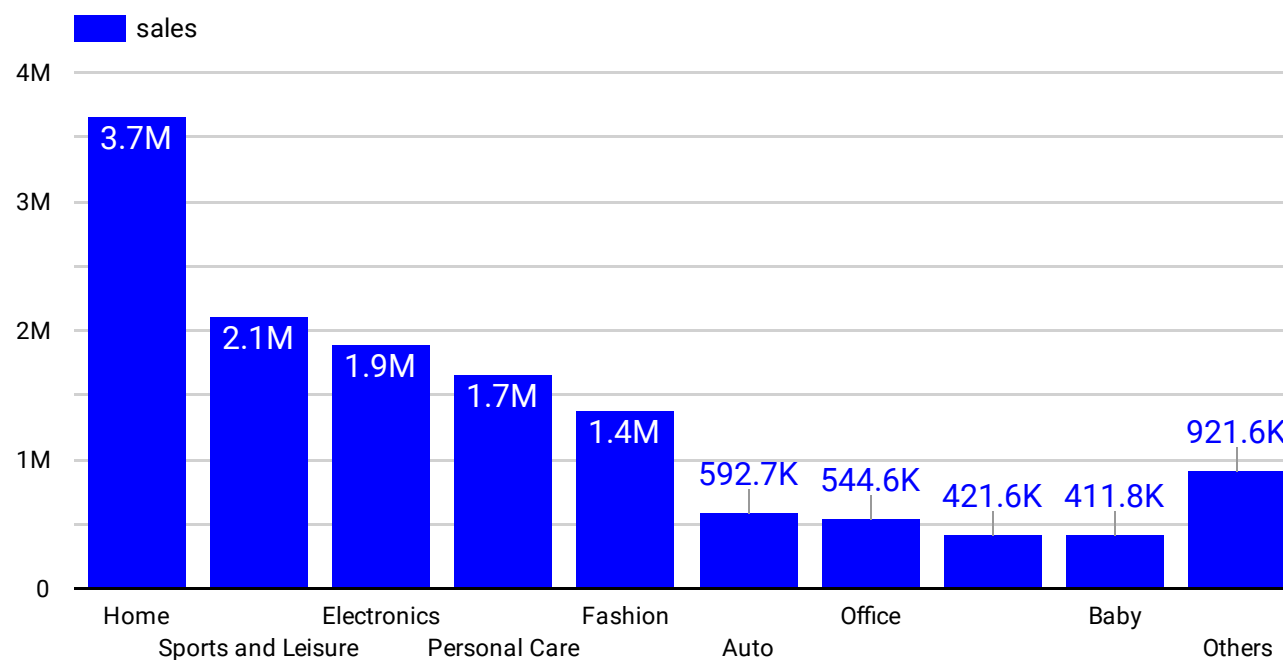
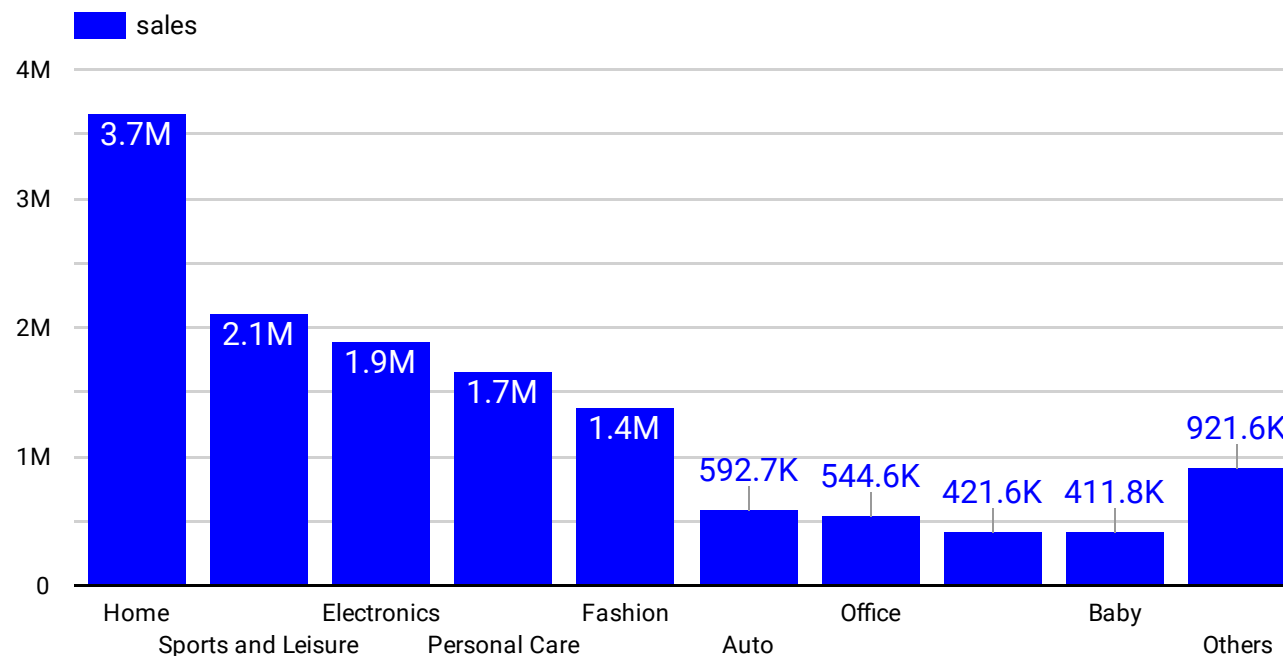
of Unique Products

32,951

Interactive cross-filtering enabled: click on any of the categories in the table or any of the bars in the charts to filter the other visuals. All visuals can show either Category or Subcategory just by using the drilldown arrows in each visual

	category	sales
1.	Home	3,654,982.02
2.	Sports and Leisure	2,107,286.42
3.	Electronics	1,894,096.85
4.	Personal Care	1,659,373.8
5.	Fashion	1,383,661.59
6.	Auto	592,720.11
7.	Office	544,573.54
8.	null	421,572.98
9.	Baby	411,764.89
10.	Books, Music, and Movies	281,788.87
11.	Tools	267,921.95
12.	Pets	214,315.41
13.	Misc	90,583.68
14.	Food and Beverage	67,001.59
	Grand total	13,591,643.7

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Descriptive Statistics (bins of 100)

Order Count

99.4K

Total Sales

13.6M

Avg Order Value

137.75

Med Order Value

86.9

Max Order Value

13,440

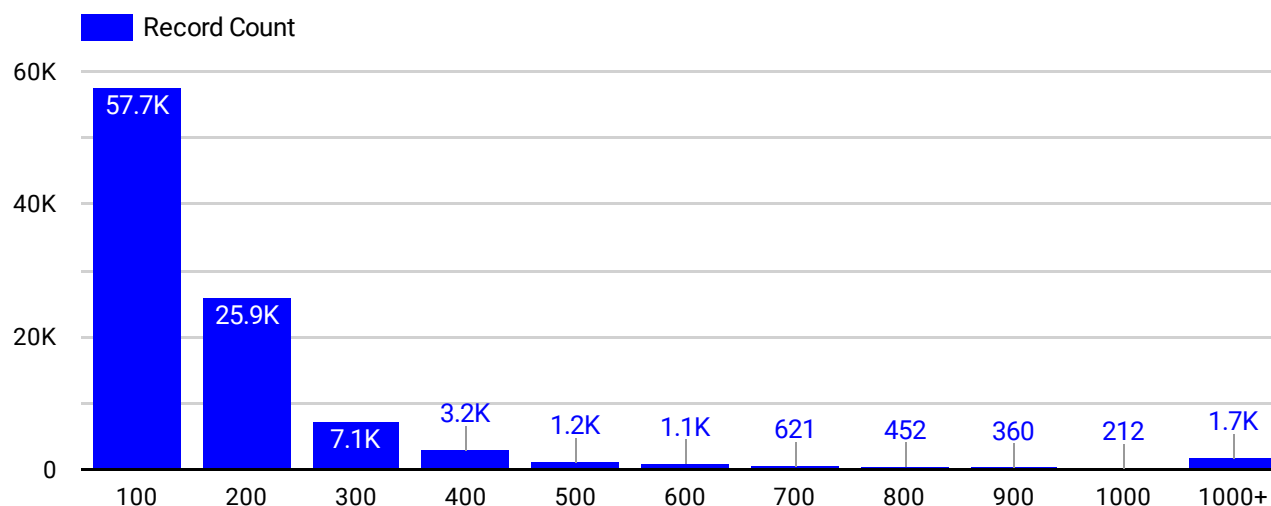
Min Order Value

0.85

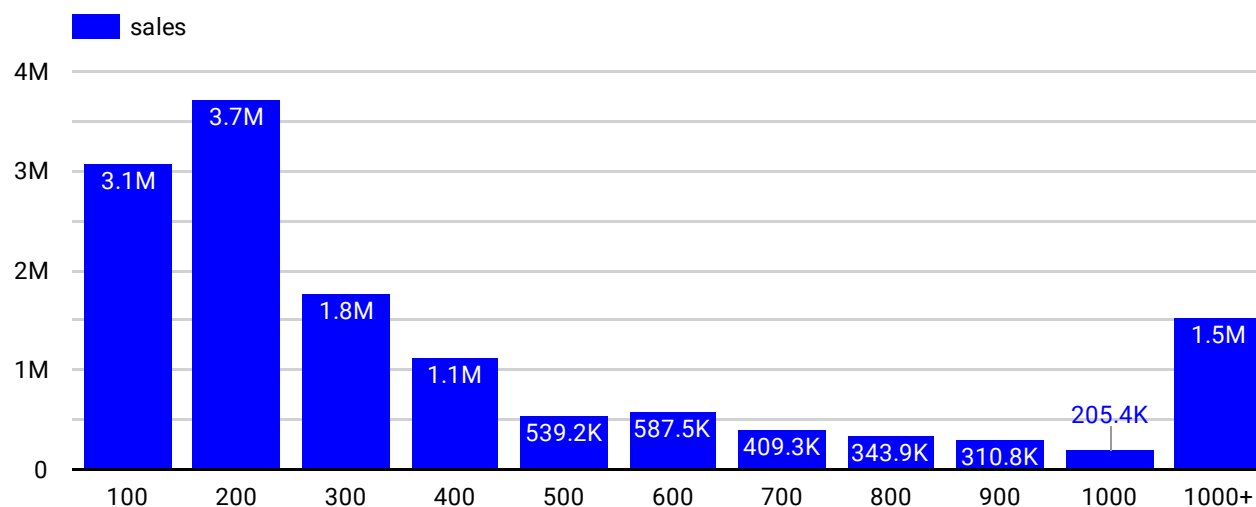
STD Order Value

210.65

Order Value Distribution



Sales by Order Value Bin



Average order value for Olist has a much higher mean of R\$138 than the median of R\$87, which suggests a long tail of higher-value orders. This is visually evident in the histograms, where the distribution of order values shows a significant number of high-value orders that elevate the average. Specifically, we can see that 1.7k orders were over R\$1000 and made up R\$1.5M in total sales. This indicates that less than 2% of total orders contributed to over 11% of total sales.

This disparity highlights the importance of high-value orders in driving overall revenue. While the majority of orders are clustered around lower values, the presence of these high-value orders significantly impacts the business's financial performance.

This insight can guide strategic decisions in several areas:

- customer segmentation
- product and pricing
- inventory management
- sales and revenue forecasting

Descriptive Statistics (bins of 10)

Order Count

99.4K

Total Sales

13.6M

Avg Order Value

137.75

Med Order Value

86.9

Max Order Value

13,440

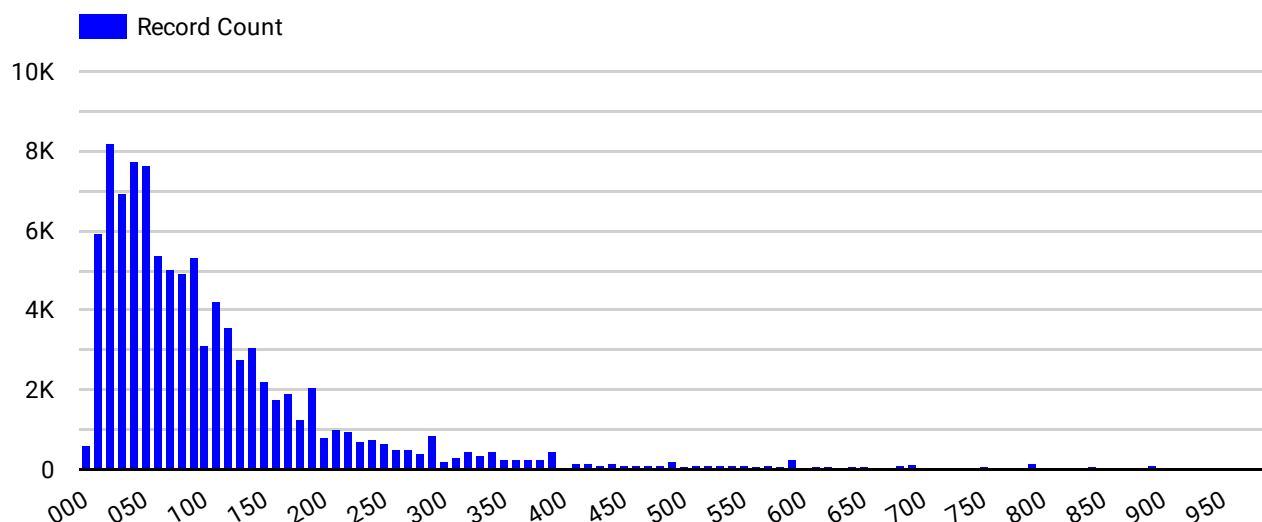
Min Order Value

0.85

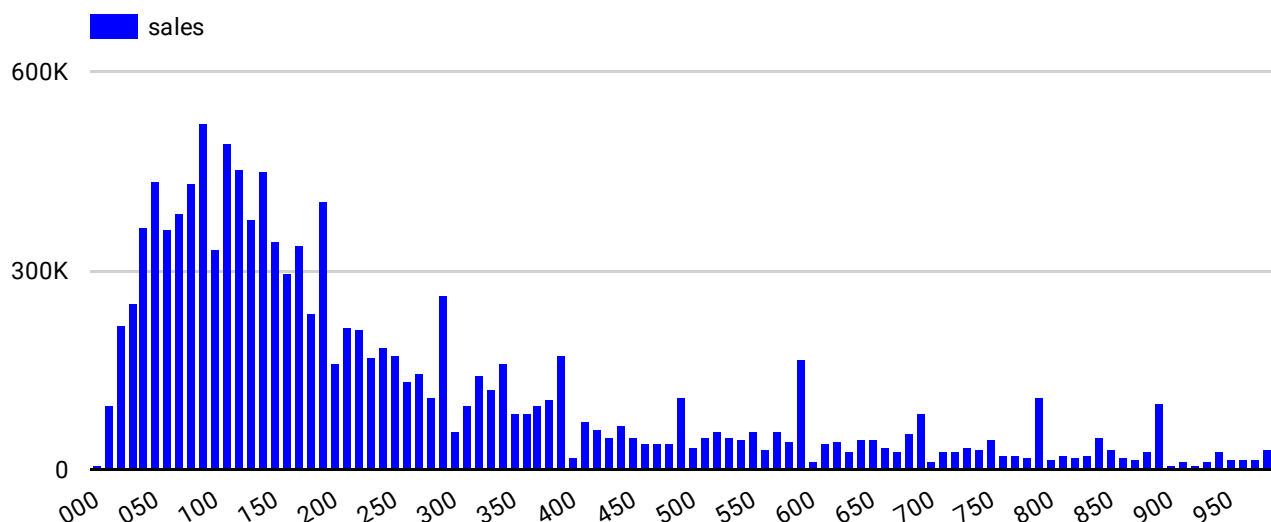
STD Order Value

210.65

Order Value Distribution



Sales by Order Value Bin



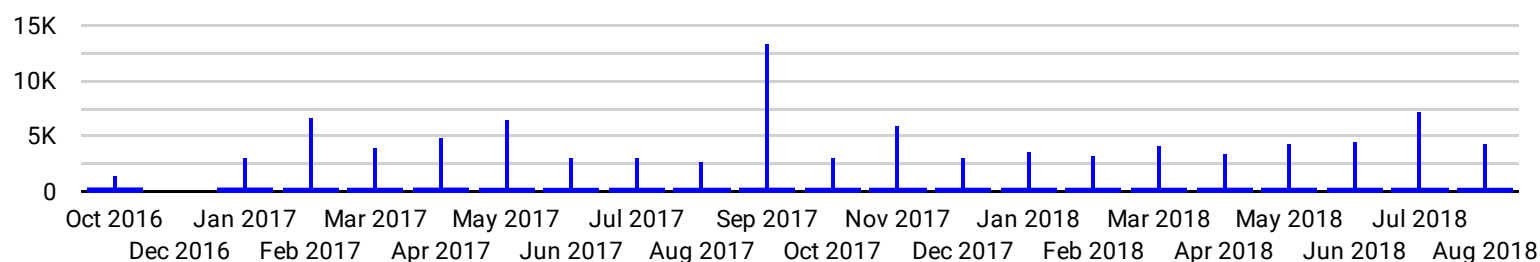
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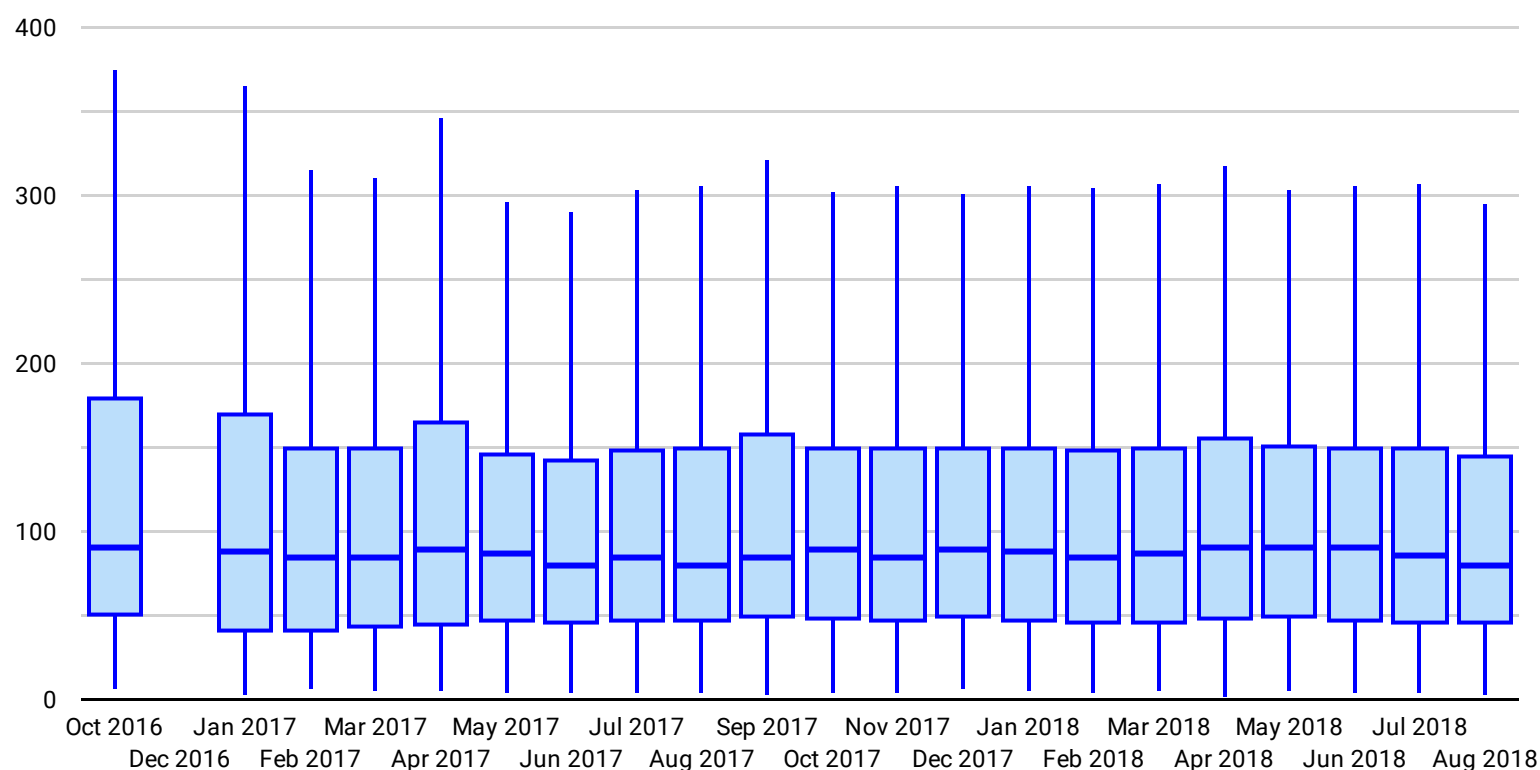
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Order Value Boxplots (upper whisker extends to max value)



Order Value Boxplots (traditional boxplot)

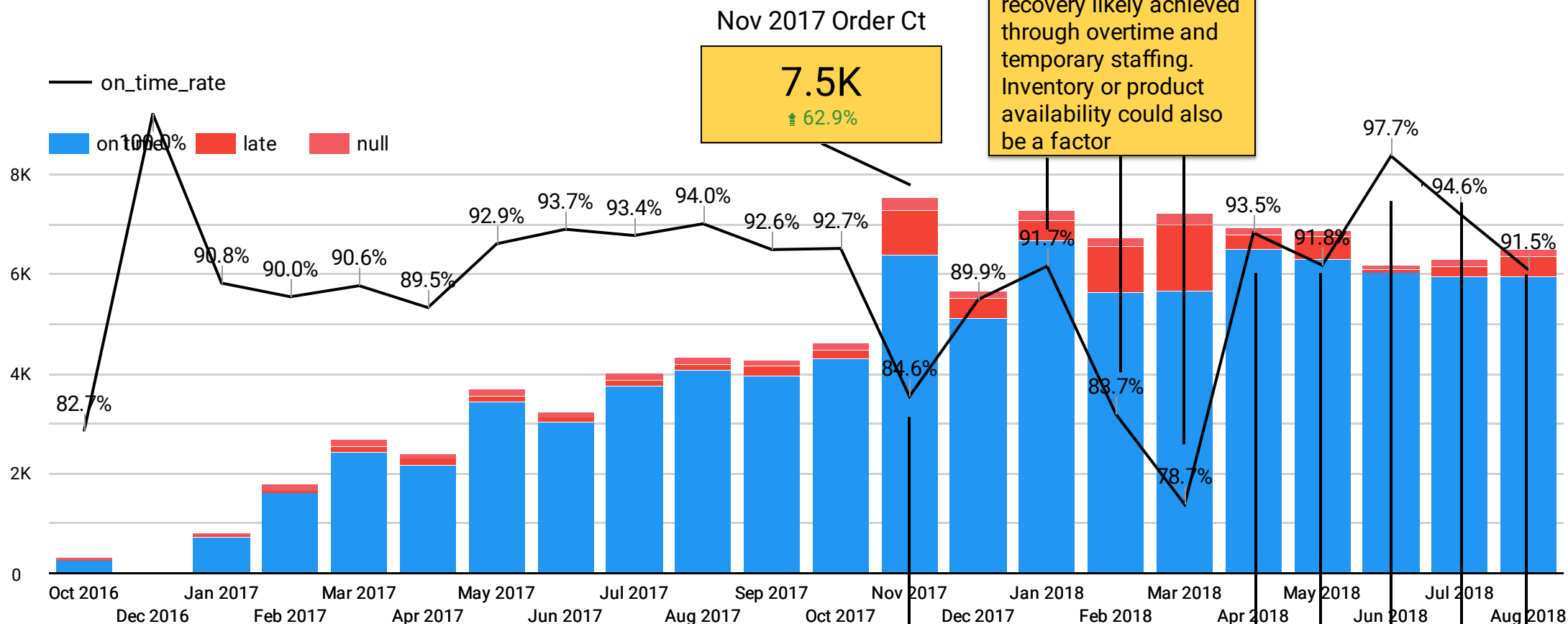


The boxplots provide insightful visual representations of order values across different months. They reveal that about 75% of the orders are roughly under R\$150 for the majority of months where we have sales data. This indicates that the bulk of Olist's orders are relatively modest in value.

Additionally, the boxplots show that the maximum order value has reached as high as R\$13,000, and orders beyond the 75th percentile can vary drastically in size. This wide range of order values could indicate the following:

- Diverse customer base
- High variety in product offerings
- High variability in product pricing including big-ticket items
- Selling items in bulk

Sales and On Time Rate Trends



order_purchase_time...	order_id	sales
1. Nov 2017	7.5K	1,010,271.37
2. Apr 2018	6.9K	996,647.75
3. May 2018	6.9K	996,517.68
4. Mar 2018	7.2K	983,213.44
5. Jan 2018	7.3K	950,030.36
6. Jul 2018	6.3K	895,507.22
7. Jun 2018	6.2K	865,124.31
8. Aug 2018	6.5K	854,686.33
Grand total	99.4K	13,591,643.7

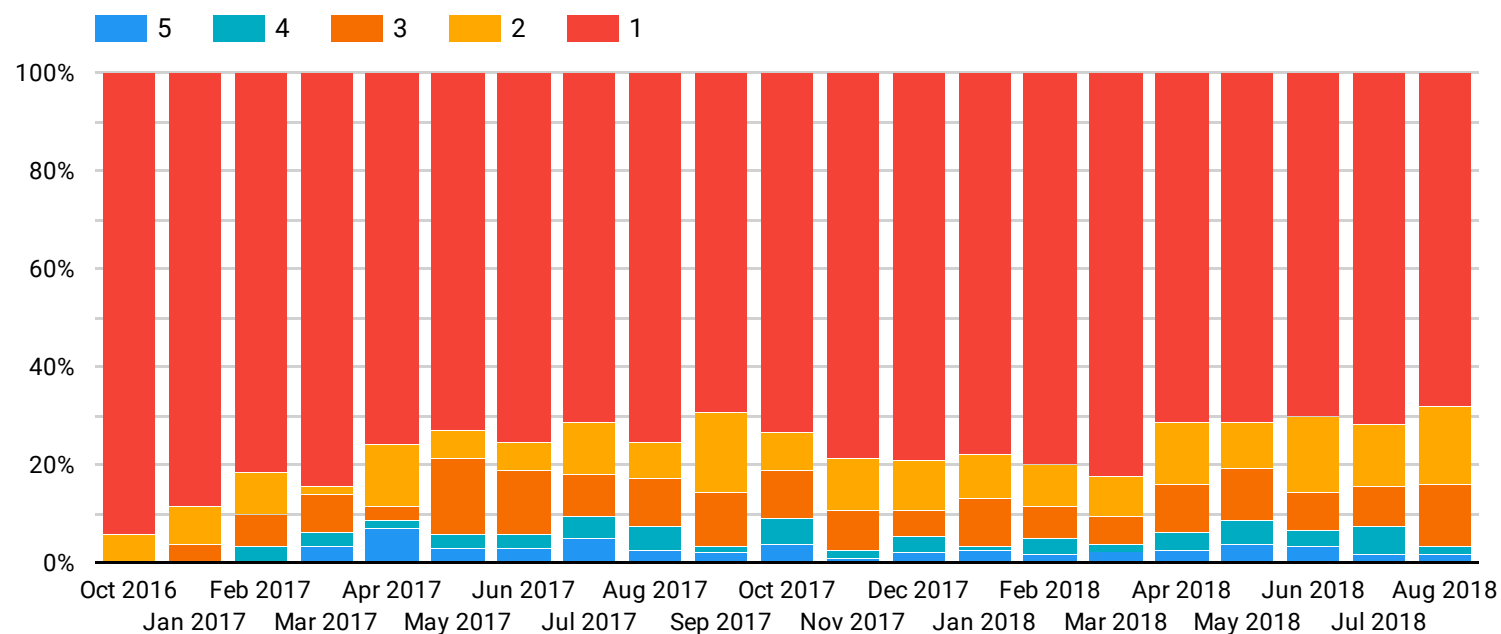
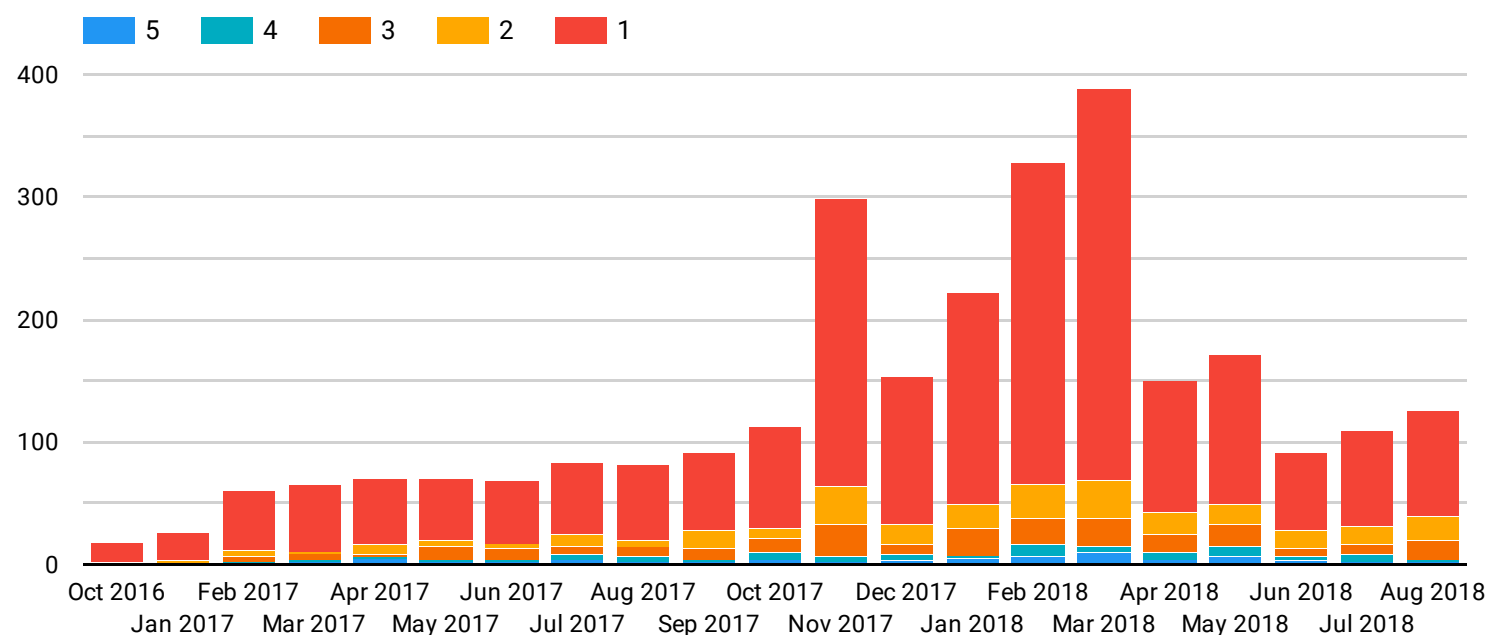
	review_cat	Record Count ▾
1.	did_not_leave_a_review	58,713
2.	Uncategorized	19,375
3.	good_experience	8,052
4.	arrived_early	6,660
5.	did_not_receive	2,792
6.	good_quality	2,784
7.	poor_quality	397
8.	wrong_product	340
9.	poor_experience	328

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click on above review categories to filter the visuals on the right.

If we filter on "did_not_receive" or "poor_experience" we can see the poor reviews correlate with the big increase in orders starting Nov 2017. Highlighting the importance of accurate forecasting

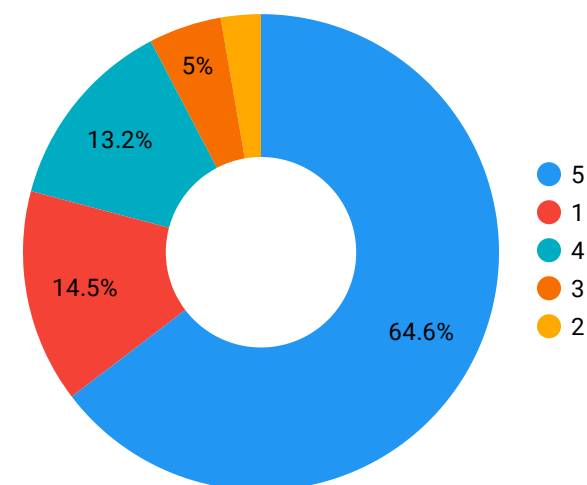


Customer Reviews by Review Category

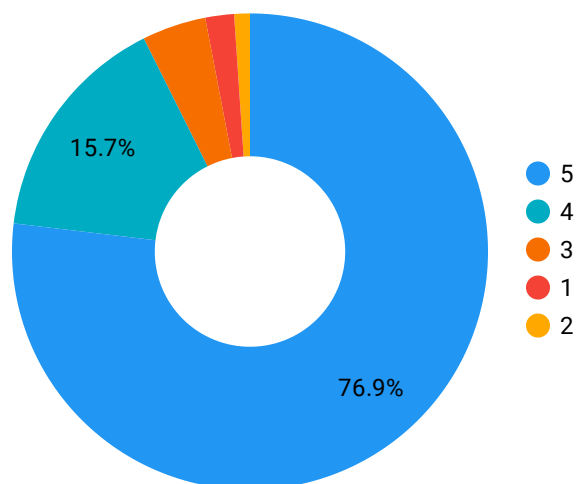
review_score / Record Count					
review_cat	1	2	3	4	5
good_experience	157	86	350	1,268	6,191
arrived_early	84	44	166	866	5,500
did_not_receive	2,144	274	232	77	65
good_quality	45	34	177	552	1,976
poor_quality	241	58	65	18	15
wrong_product	217	42	36	21	24
poor_experience	209	43	31	16	29
Grand total	3,097	581	1,057	2,818	13,800

records without a review and that were not categorized were excluded from the analysis

Crossfilter: Filter by clicking categories in table to the left

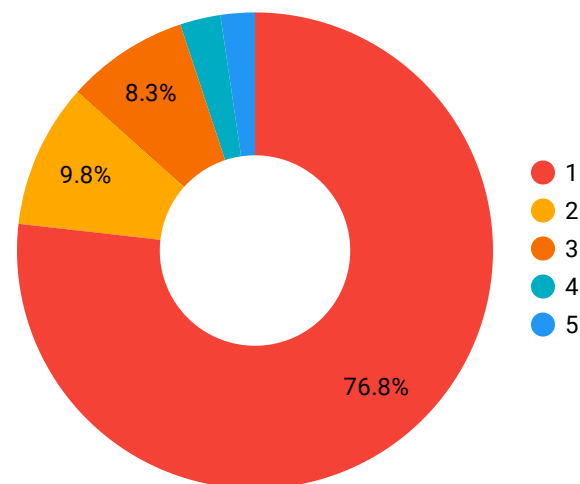


Good Experience



Good Experience: This review category had the most 5 reviews and shows how a good experience translates to high review scores. Over 90% of reviews in this category scored between 4 and 5.

Did Not Receive

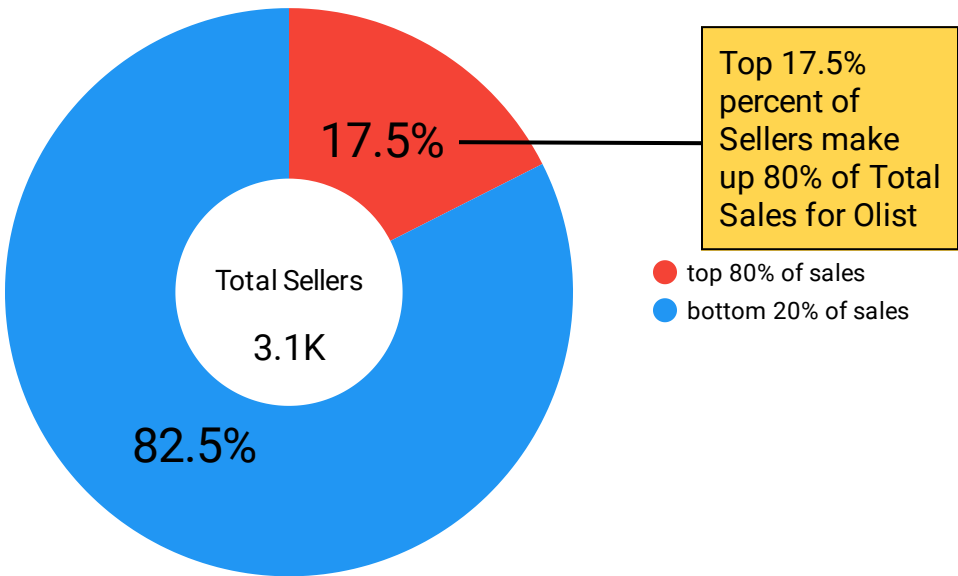


Did Not Receive: This review category had the most 1 reviews and shows how critical it is to get customers their orders on time. Over 85% of reviews in this category scored between 1 and 2.

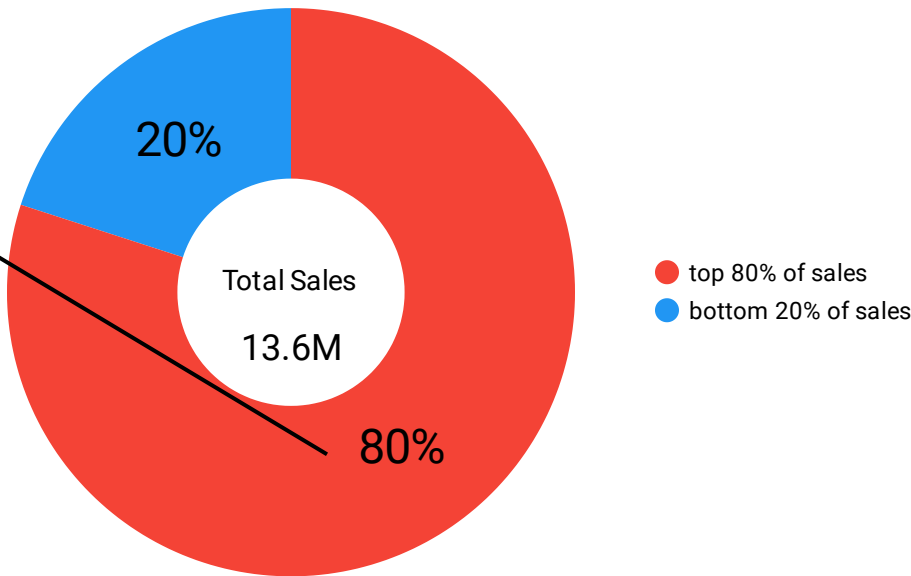


Pareto Principle or 80/20 rule

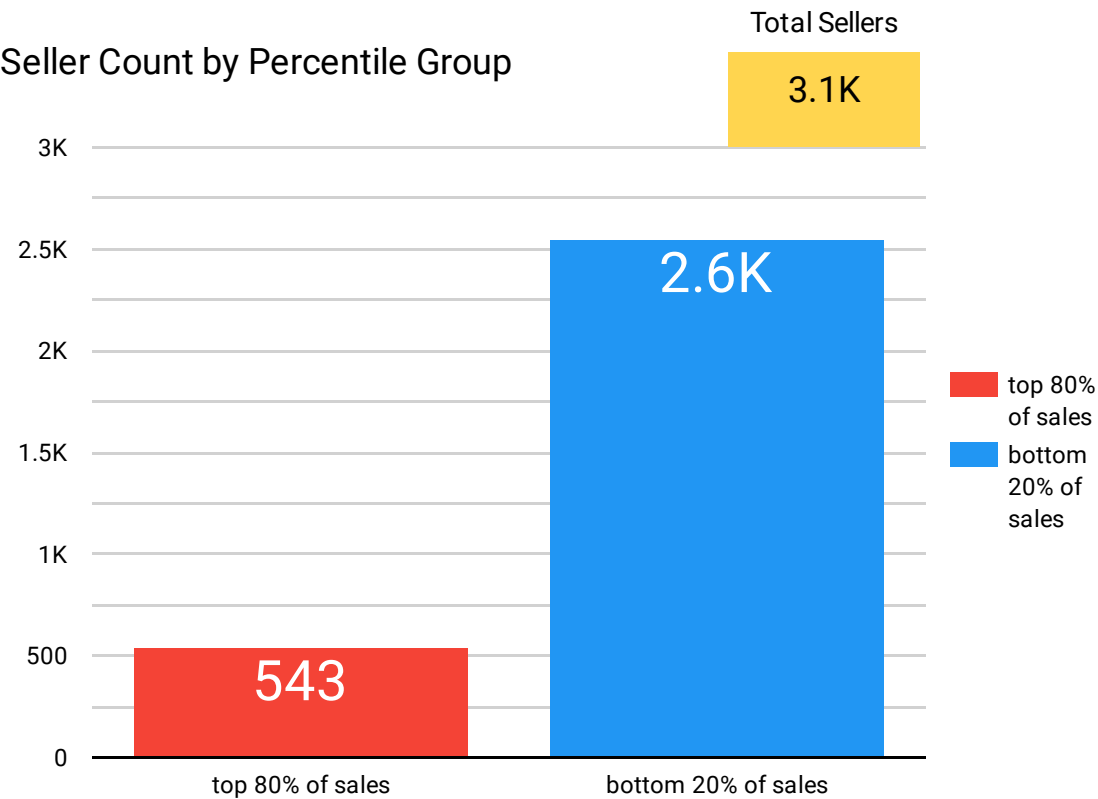
Seller % by Sales Percentile Group



Sales % by Sales Percentile Group



Seller Count by Percentile Group



Sales by Percentile Group

